

REMARKS

Claim 12 is currently being amended to fix an unintentional typographical error, while claim 9 is being amended to further particularly point out and distinctly claim what Applicant regards as the inventive subject matter, with respect to claim 9.

The amendments to claims 9 and 12 presented herein do not introduce new matter within the meaning of 35 U.S.C. §132. Accordingly, the Examiner is respectfully requested to enter these amendments.

1.Objection of Claim 12

The Office Action states,

Claim 12 is objected to because of the following informalities: Claim 12, line 6, "polymer **ad** the partially" suggested to be changed to --polymer and the partially--.

Appropriate correction is required.

RESPONSE

Applicant kindly thanks the Examiner for bringing this to Applicant's attention. As such, Applicant has amended claim 12 to fix the aforementioned unintentional typographical error. Accordingly, the Examiner is respectfully requested to withdraw the current objection.

2. Rejection of Claim 9 Under 35 U.S.C. §112

The Office Action states claim 9 is indefinite for failing to particularly point out and distinctly claim the subject matter which Applicant regards as the invention. In particular, the Office Action states,

Claim 9, line 2-3, "0.5 to 3 parts by weight of mineral fillers" causes indefiniteness because there is no base to cite such amount.

RESPONSE

Applicant has currently amended claim 9. Accordingly, Applicant respectfully believes currently pending claim 9 is definite, that one skilled in the art would appreciate the metes and bounds thereof, and conforms to 35 U.S.C. 112, 2nd paragraph. Additionally, with respect to the basis for claim 9, proper basis can be found on page 2, lines 11-13 of Applicant's specification.

3. Rejection of Claims 8-11 and 13 Under 35 U.S.C. §102(b)

The Office Action states that claims 8-11 and 13 are rejected under 35 U.S.C. §102(b) as being anticipated by DeNicola, Jr., et al. (U.S. Patent 5,286,791). In particular, the Office Action states,

DeNicola, Jr. et al. disclose an impact-modified graft copolymer composition to be used in an inject molding to make an article, comprising (A) 10-90 wt% of graft copolymer, (B) 90-10 wt% of at least one propylene polymer having a wide molecular weight distribution, and (C) 2-40 wt% of at least one rubber component, wherein the component B has a molecular weight distribution of 8-60 and a melt flow rate of 0.5-50 g/10 min; the component C can be an

ethylene-propylene copolymer rubber having 30-70% ethylene content (abstract; col. 4, lines 25-31; col. 7, line 33, 46-48, and 62-63; Examples 1-5-especially line 9; claims 1 and 4). DeNicola, Jr. also disclose that the composition further comprises about 10-100 pph of a filler which can be talc, a calcium carbonate, and silicate (col. 3, lines 25-32; col. 10, lines 36-43). It is noted that the ethylene-propylene copolymer rubber reads on the partially xylene soluble olefin polymer rubber.

RESPONSE

Applicant respectfully traverses the rejection of claims 8-11 and 13.

For a reference to anticipate an invention, all of the elements of that invention must be present in the reference. The test for anticipation under section 102 is whether each and every element as set forth in the claims is found, either expressly or inherently, in a single prior art reference. *Verdegaal Bros. V. Union Oil Co. of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). The identical invention must be shown in as complete detail as is contained in the claim. *Richardson v. Suzuki Motor Co.*, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). The elements must also be arranged as required by the claim. *In re Bond*, 15 USPQ2d 1566 (Fed. Cir. 1990).

Applicant respectfully believes DeNicola, Jr., et al. does not disclose, teach, or suggest the currently claimed polyolefin composition, which comprises: (A) from 60 to 85% by weight of a broad molecular weight distribution propylene polymer having a polydispersity index from 5 to 15, and a melt flow rate of from 20 to 78 g/10 min according to ASTM-D 1238, condition L; and (B) from 15 to 40% by weight of a partially xylene-soluble olefin polymer

rubber comprising at least 65% by weight of ethylene.

In fact, DeNicola, Jr., et al. discloses an impact modified graft copolymer composition comprising, by weight: (A) from 10 to 90% of a graft copolymer of propylene polymer material having graft polymerized thereto one or more vinyl monomer(s); (B) from 90 to 10% of at least one broad molecular weight distribution propylene polymer material having a M_w/M_n of 8 to 60, a melt flow rate of 0.5 to 50, and a xylene insolubles at 25°C of greater than or equal to 94%; and (C) from 2 to 25% of at least one rubber component, wherein the total amount of (A)+(B)+(C) is 100%.

Accordingly, Applicant respectfully believes DeNicola, Jr., et al. clearly relates to an impact modified graft copolymer composition comprising, in part, from 10 to 90% by weight of a propylene graft copolymer material, with the propylene graft copolymer material having one or more vinyl monomer(s) grafted thereto, and not to the currently claimed polyolefin compositions comprising from 60 to 85% by weight of a broad molecular weight distribution propylene polymer having a polydispersity index from 5 to 15 and a melt flow rate of from 20 to 78 g/10 min according to ASTM-D 1238, condition L; and from 15 to 40% by weight of a partially xylene-soluble olefin polymer rubber comprising at least 65% by weight of ethylene.

DeNicola, Jr., et al., clearly outlines the importance of the propylene graft copolymer material, and even states, "The present invention relates to compositions comprising a graft copolymer . . . in particular, to an impact modified graft copolymer composition

comprising a graft copolymer of propylene polymer material. . . ."

See col. 1, lines 8-16. Accordingly, Applicant believes DeNicola, Jr., et al. clearly relates to an impact modified graft copolymer composition, with the impact modified graft copolymer composition comprising a graft copolymer of propylene polymer material, whereas the instant application relates to polyolefin compositions comprising from 60 to 85% by weight of a broad molecular weight distribution propylene polymer having a polydispersity index from 5 to 15 and a melt flow rate of from 20 to 78 g/10 min according to ASTM-D 1238, condition L; and from 15 to 40% by weight of a partially xylene-soluble olefin polymer rubber comprising at least 65% by weight of ethylene.

Additionally, Applicant respectfully believes DeNicola, Jr., et al. does not disclose, teach, or suggest Applicant's specifically claimed component (A) (i.e., from 60 to 85% by weight of a broad molecular weight distribution propylene polymer having a polydispersity index from 5 to 15 and a melt flow rate of from 20 to 78 g/10 min according to ASTM-D 1238, condition L).

In fact, DeNicola, Jr., et al. discloses a very broad range of impact modified graft copolymer compositions, with the impact modified graft copolymer compositions comprising, in addition to the critical graft copolymer (i.e., component (A) of DeNicola, Jr., et al.), from 10% to 90% of a propylene copolymer material. Accordingly, Applicant respectfully believes the very broad, generic disclosure of the propylene copolymer material in DeNicola, Jr., et al. clearly does not anticipate Applicant's specifically claimed

component (A), let alone the specifically claimed range of 60 to 85% by weight of component (A). In order to anticipate the claims, the claimed subject matter must be disclosed in the reference with "sufficient specificity to constitute an anticipation under the statute." See *Atofina v. Great Lakes Chem. Corp.*, 441 F.3d 991, 999, 78 USPQ2d 1417, 1423 (Fed. Cir. 2006), and MPEP §2131.03 (II).

Accordingly, given DeNicola, Jr., et al. clearly relates to completely different compositions, Applicant respectfully believes the currently claimed polyolefin compositions are not anticipated.

In light of the above, claims 8-11 and 13 are therefore believed to be patentable over DeNicola, Jr., et al. As such, allowance of the claims is earnestly requested.

4. Rejection of Claim 12 Under 35 U.S.C. §103(a)

The Office Action states that claim 12 is rejected under 35 U.S.C. §103(a) as being unpatentable over DeNicola, Jr., et al. (U.S. Patent 5,286,791). In particular, the Office Action states,

DeNicola, Jr. et al. disclose a process to prepare a broad-molecular-weight-distribution polypropylene by a sequential polymerization in at least two stages in the presence of a Ziegler-Natta catalyst comprising a titanium compound supported on a magnesium halide in active form, an Al-alkyl compound, and an external electron-donor compound, the polymerization operating in separate and consecutive stages with each stage having the presence of the polymer and the catalyst coming from the preceding stage (col. 4, lines 38-43; col. 6, lines 66-68; col. 7, lines 1-3).

The difference between the present claim and the disclosure of DeNicola, Jr. is the requirement of a broad molecular weight distribution propylene polymer and the partially xylene soluble olefin polymer rubber being prepared in separate subsequent steps.

It is noted that the polymerization of polymer in at least two separate and consecutive stages results in a broad molecular weight distribution polymer. It is obvious to have both polypropylene and the ethylene-propylene copolymer rubber being carried out in the separate subsequent steps to obtain the composition with the expected success because DeNicola Jr. do teach such process.

RESPONSE

Applicant respectfully traverses the rejection of claim 12.

The U.S. Supreme Court in *Graham v. John Deere Co.*, 148 U.S.P.Q. 459 (1966) held that non-obviousness was determined under § 103 by (1) determining the scope and content of the prior art; (2) ascertaining the differences between the prior art and the claims at issue; (3) resolving the level of ordinary skill in the art; and, (4) inquiring as to any objective evidence of non-obviousness.

Additionally, to establish a *prima facie* case of obviousness, the Examiner must establish: (1) that some suggestion or motivation to modify the references exists; (2) a reasonable expectation of success; and (3) that the prior art references teach or suggest all the claim limitations. Amgen, Inc. v. Chugai Pharm. Co., 18 USPQ2d 1016, 1023 (Fed. Cir. 1991); In re Fine, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988); In re Wilson, 165 USPQ 494, 496 (C.C.P.A. 1970).

Arguments regarding DeNicola, Jr., et al. *supra*, are incorporated herein by reference in their entirety.

In this regard, with respect to the arguments regarding DeNicola, Jr., et al. outlined above, Applicant respectfully believes DeNicola, Jr., et al. fails to disclose, teach, or suggest

the currently, specifically claimed polyolefin compositions comprising (A) from 60 to 85% by weight of a broad molecular weight distribution propylene polymer having a polydispersity index from 5 to 15 and a melt flow rate of from 20 to 78 g/10 min according to ASTM-D 1238, condition L; and (B) from 15 to 40% by weight of a partially xylene-soluble olefin polymer rubber comprising at least 65% by weight of ethylene.

In addition to failing to disclose, teach, or suggest the specifically, currently claimed polyolefin compositions, Applicant respectfully believes DeNicola, Jr., et al. fails to disclose, teach, or suggest a process for preparing the specifically, currently claimed polyolefin compositions, wherein monomers are polymerized by at least one stereospecific catalyst supported on active magnesium halide in active form in at least three sequential steps, wherein the broad molecular weight distribution propylene polymer and the partially xylene-soluble olefin polymer rubber are prepared in separate subsequent steps, with each separate subsequent steps operating with the polyolefin composition formed and the stereospecific catalyst used in an immediately preceding separate subsequent step.

In particular, Applicant respectfully believes DeNicola, Jr., et al. fails to disclose, teach, or suggest the specifically claimed polyolefin compositions, which are prepared by the specifically claimed process, with the process comprising the specifically claimed three sequential polymerization steps.

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations. See MPEP §2142.

In light of the above, claim 12 is therefore believed to be non-obvious and patentable over DeNicola, Jr., et al. As such, allowance of the claims is earnestly requested.

5. Rejection of Claim 14 Under 35 U.S.C. §103(a)

The Office Action states that claim 14 is rejected under 35 U.S.C. §103(a) as being unpatentable over DeNicola, Jr., et al. (U.S. Patent 5,286,791) in view of Herman (U.S. Patent 5,174,384). In particular, the Office Action states,

DeNicola, Jr. et al. disclose an article obtained by inject molding of an impact-modified graft copolymer composition comprising (A) 10-90 wt% of graft copolymer, (B) 90-10 wt% of at least one propylene polymer having a molecular weight distribution of 8-60 and a melt flow rate of 0.5-50 g/10 min, and (C) 2-40 wt% of at least one ethylene-propylene copolymer rubber having 30-70% ethylene content, which reads on the partially xylene soluble olefin polymer rubber (abstract; col. 4, lines 25-31; col. 7, lines 33, 46-48, and 62-63; Examples 1-5-especially line 9; claims 1 and 4).

The difference between the present claim and the disclosure of DeNicola, Jr. et al. is the requirement of the article to be a bumper which comprises the impact-modified graft copolymer composition in the present claim.

Herman discloses a pumper comprising a synthetic, ozone resistant, non-acid forming, extruded rubber lining (col. 9, lines 56-61). DeNicola, Jr. et al. disclose that the composition has improved impact/stiffness balance without a substantial loss in modulus (col. 2, lines 66-68; col. 3, lines 1-8). In light of such benefit, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use the composition disclosed by DeNicola, Jr. et al. in the bumper and thereby obtain the present invention.

RESPONSE

Applicant respectfully traverses the rejection of claim 14.

The U.S. Supreme Court in *Graham v. John Deere Co.*, 148 U.S.P.Q. 459 (1966) held that non-obviousness was determined under § 103 by (1) determining the scope and content of the prior art; (2) ascertaining the differences between the prior art and the claims at issue; (3) resolving the level of ordinary skill in the art; and, (4) inquiring as to any objective evidence of non-obviousness.

Additionally, to establish a *prima facie* case of obviousness, the Examiner must establish: (1) that some suggestion or motivation to modify the references exists; (2) a reasonable expectation of success; and (3) that the prior art references teach or suggest all the claim limitations. Amgen, Inc. v. Chugai Pharm. Co., 18 USPQ2d 1016, 1023 (Fed. Cir. 1991); In re Fine, 5 USPQ2d 1596, 1598 (Fed. Cir. 1988); In re Wilson, 165 USPQ 494, 496 (C.C.P.A. 1970).

All arguments regarding DeNicola, Jr., et al. *supra*, are incorporated herein by reference in their entirety.

In this regard, with respect to the arguments regarding DeNicola, Jr., et al. outlined above, Applicant respectfully

believes DeNicola, Jr., et al. fails to disclose, teach, or suggest the currently, specifically claimed polyolefin compositions comprising (A) from 60 to 85% by weight of a broad molecular weight distribution propylene polymer having a polydispersity index from 5 to 15 and a melt flow rate of from 20 to 78 g/10 min according to ASTM-D 1238, condition L; and (B) from 15 to 40% by weight of a partially xylene-soluble olefin polymer rubber comprising at least 65% by weight of ethylene.

Accordingly, Applicant respectfully believes bumpers comprising the currently, specifically claimed polyolefin compositions are non-obvious in view of DeNicola, Jr., et al., given the fact that, as discussed supra, DeNicola, Jr., et al. relates to completely different compositions.

Additionally, Applicant traverses the use of Herman given the fact that (i) Herman does not remedy the deficiencies outlined above relating to DeNicola, Jr., et al., and (ii) Herman is not analogous art. See MPEP §2141.01(a) and §2145 (IX).

In fact, Herman relates to a mechanical device for transporting fluid or solid materials for firefighting. See col. 1, lines 5-17. As such, Herman clearly does not relate to Applicant's currently claimed polyolefin compositions, or bumpers comprising Applicant's currently claimed polyolefin compositions.

In light of the above, claim 14 is therefore believed to be non-obvious and patentable over DeNicola, Jr., et al. in view of Herman. As such, allowance of the claims is earnestly requested.


CONCLUSION

Based upon the above remarks, the presently claimed subject matter is believed to be novel and patentably distinguishable over the prior art of record. The Examiner is therefore respectfully requested to reconsider and withdraw all rejections and allow all pending claims 8-14. Favorable action with an early allowance of the claims pending in this application is earnestly solicited.

The Examiner is welcomed to telephone the undersigned practitioner with any questions or comments if it is believed such contact will expedite prosecution for this application.

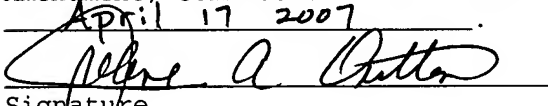
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